## 9 Emotional Reactions to Law and Economics, Market Metaphors, and Rationality Rhetoric

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This chapter makes three fundamental points about law and economics. First, some people have strong, negative emotional reactions to utilizing microeconomics to analyze nonbusiness areas of law, whereas other have no such reactions.<sup>2</sup> This chapter advances the hypothesis that people who do not view the world through an economics lens are likely to experience negative feelings toward applying microeconomics to nonbusiness law areas, whereas people who view the world through an economics lens are unlikely to do so.<sup>3</sup> Second, while law and economics remains an uncontroversial subfield of applied microeconomics, it has become a dominant yet controversial field of scholarship in legal academia.<sup>4</sup> This chapter proposes that differences in how most academic and professional economists perceive law and economics versus how most academic and professional lawyers perceive law and economics are due primarily to differences in how familiar they are with microeconomics presented in a mathematically rigorous fashion. Third, much research considerably and significantly qualifies many well-known and often quoted alleged benefits of competitive markets and unbounded rationality.<sup>5</sup> People who comprehend this research appreciate that the extent to which markets and rationality are socially desirable is more complicated than people who do not understand this research often suggest. This research involves traditional

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<sup>&</sup>lt;sup>1</sup> Austan Goolsbee, 2006, "The 486th Convocation Address: Why People Hate Economists (and Why We Don't Care)," *The University of Chicago Record*, 41, pp. 18–19, available online at http://www.uchicago.edu/docs/education/record/pdfs/41-1.pdf.

<sup>&</sup>lt;sup>2</sup> Kevin M. Murphy, 2006, "The 485th Convocation Address: 'Seeing the World through the Economics Lens,'" *The University of Chicago Record*, 41, pp. 12–13, available online at http://www.uchicago.edu/docs/education/record/pdfs/41-1.pdf.

docs/education/record/pdfs/41-1.pdf.

Drew Westen, 2007, *The Political Brain: The Role of Emotion in Deciding the Fate of the Nation*, New York: Public Affairs.

<sup>&</sup>lt;sup>4</sup> Nicholas Mercuro and Steven G. Medema, 2006, Economics and the Law: From Posner to Postmodernism and Beyond, 2nd ed., Princeton: Princeton University Press.

<sup>&</sup>lt;sup>5</sup> Hugh Schwartz, 2000, Rationality Gone Awry?: Decision Making Inconsistent with Economic and Financial Theory, New York: Praeger.

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microeconomics,<sup>6</sup> behavioral economics,<sup>7</sup> cognitive psychology,<sup>8</sup> social psychology,9 and neuroeconomics.10

## I. EMOTIONAL AND UNEMOTIONAL REACTIONS TO LAW AND ECONOMICS

It is uncontroversial to apply economics to analyze business-related law fields. Most applications of economics to law utilize microeconomics, but a few applications of macroeconomics to law exist.<sup>11</sup> Law and economics began its rise to prominence in legal academia by applying microeconomics to every subject in the first-year law school curriculum, namely civil procedure, constitutional law, contracts, criminal law, property, and torts. Some applications remain controversial, such as the assertion that the socially optimal amount of litigation is positive;<sup>12</sup> the concept of a socially optimal extent of liberty;<sup>13</sup> that the socially optimal number of contract breaches is positive;<sup>14</sup> that the death penalty deters violent crimes by raising their price;<sup>15</sup> that the socially optimal quantity of accidents is positive;<sup>16</sup> and that the socially optimal magnitude of pollution is positive.<sup>17</sup>

It has always been and remains today controversial among most noneconomists and those who do not see the world through an economic lens to apply microeconomics to nonbusiness fields of law. For example, a seminal article that applied microeconomics to analyze child adoption generated much controversy. <sup>18</sup> More generally, applying microeconomics to analyze family law remains controversial

- <sup>6</sup> David D. Cremer et al., eds., 2006, Social Psychology and Economics, Mahwah, NJ: Lawrence Erlbaum
- <sup>7</sup> Peter Diamond and Hannu Vartiainen, eds., 2007, Behavioral Economics and Its Applications, Princeton: Princeton University Press.
- <sup>8</sup> Don Ross, 2005, Economic Theory and Cognitive Science: Microexplanation, Cambridge, MA: MIT
- <sup>9</sup> Paul A. M. Van Lange, ed., 2006, Bridging Social Psychology: Benefits of Transdisciplinary Approaches, Mahwah, NJ: Lawrence Erlbaum Associates.
- Oolin F. Camerer, 2007, "Neuroeconomics: Using Neuroscience to Make Economic Predictions," Economic Journal, 117, pp. C26-C42.
- 11 Mark Kelman, 1993, "Could Lawyers Stop Recessions? Speculations on Law and Macroeconomics," Stanford Law Review, 45, pp. 1215-310; Steven A. Ramirez, 2003, "The Law and Macroeconomics of the New Deal at 70," Maryland Law Review, 62, pp. 515-72; Steven A. Ramirez, 2002, "Fear and Social Capitalism: The Law and Macroeconomics of Investor Confidence," Washburn Law Review, 42, pp. 31–77.

  Robert G. Bone, 2002, Civil Procedure: Economics of Civil Procedure, New York, Foundation Press.
- <sup>13</sup> Robert D. Cooter, 2002, *The Strategic Constitution*, Princeton: Princeton University Press.
- <sup>14</sup> Victor Goldberg, 2007, Framing Contract Law: An Economic Perspective, Cambridge, MA: Harvard University Press.
- 15 Susan Bandes, 2008, "The Heart Has Its Reasons: Examining the Strange Persistence of the American Death Penalty," Studies in Law, Politics and Society, 42, pp. 21-52.
- Thomas J. Miceli, 1997, Economics of the Law: Torts, Contracts, Property and Litigation, Oxford: Oxford University Press.
- <sup>17</sup> Ibid.
- <sup>18</sup> Elisabeth M. Landes and Richard A. Posner, 1978, "The Economics of the Baby Shortage," *Journal* of Legal Studies, 7, pp. 323-48; see also the chapter by Dorff and Ferzan in this volume.

among legal scholars to this day, 19 but is uncontroversial among economists 20 and lawyers.21

Most economists have no emotional reactions toward applying microeconomics to nonbusiness areas of law, but many noneconomists have quite strong emotional reactions to doing so. Emotional reactions vary across the negative-to-positive spectrum, ranging from such negative reactions as discomfort, disgust, and shock, to such positive reactions as admiration, comfort, and pleasure. Other emotional reactions include amusement, anger, bewilderment, irritation, and exasperation. For example, vocal critics of cost-benefit analysis (CBA) view it as a strongly inappropriate methodology for promulgating environmental, health, and safety regulations, 22 whereas practitioners of CBA view it as merely a weak form of social rationality for ensuring that benefits of regulations exceed their costs.<sup>23</sup>

The home page of the Cultural Cognition Project describes it as "a group of scholars from Yale and other universities interested in studying how cultural values shape the public's risk perceptions and related policy beliefs. Cultural cognition refers to the tendency of individuals to conform their beliefs about disputed matters of fact (e.g., whether global warming is a serious threat; whether the death penalty deters murder; whether gun control makes society more safe or less) to values that define their cultural identities. Project members are using the methods of various disciplines - including social psychology, anthropology, communications, and political science – to chart the influence of this phenomenon and to identify the mechanisms through which it operates. The Project also has an explicit normative objective: to identify processes of democratic decision-making by which society can resolve culturally grounded differences in belief in a manner that is both congenial to persons of diverse cultural outlooks and consistent with sound public policymaking."24 Its current research projects find in a variety of settings that laypeople's perceptions of risk involve cultural cognitions and worldviews as opposed to merely probability assessments.<sup>25</sup>

Kahan observes that some individuals experience negative feelings about evaluating risks based upon CBA and its associated welfarist policymaking. 26 Huang observes that such people are likely to feel equally negative towards applying CBA

<sup>&</sup>lt;sup>19</sup> Margaret F. Brinig, 2005, "Some Concerns about Applying Economics to Family Law," in Martha Albertson Fineman and Terence Dougherty, eds., Feminism Confronts Homo Economicus: Gender, Law, and Society, Ithaca, NY: Cornell University Press, pp. 450-66.

<sup>&</sup>lt;sup>20</sup> Donald A. Wittman, 2005, "The Internal Organization of the Family: Economic Analysis and Psychological Advice," Kyklos, 58, pp. 121–44.

<sup>21</sup> Rhona Mahoney, 1995, Kidding Ourselves: Breadwinning, Babies, and Bargaining Power, New York:

<sup>&</sup>lt;sup>22</sup> Frank Ackerman and Lisa Heinzerling, 2005, *Priceless: On Knowing the Price of Everything and the* Value of Nothing, New York: The New Press.

<sup>&</sup>lt;sup>23</sup> Richard O. Zerbe, Jr., and Allen S. Bellas, 2006, *A Primer for Benefit–Cost Analysis*, Northampton, MA: Edward Elgar.

<sup>24</sup> http://research.yale.edu/culturalcognition/.

<sup>&</sup>lt;sup>25</sup> Dan M. Kahan, 2008, "Two Conceptions of Emotion in Risk Regulation," *University of Pennsylvania* Law Review, 156, pp. 741-66. <sup>26</sup> Ibid.

to a riskless environment,<sup>27</sup> because these negative feelings are responses to not just risks, but also calculations,<sup>28</sup> commensurability,<sup>29</sup> and contested commodities.<sup>30</sup> As Kenneth Arrow points out, "[o]ne of the oldest critiques of economic thinking has been its perceived disregard of the deeper and more sacred aspects of life."<sup>31</sup>

CBA strives to be, often appears to be, and usually is a cold and unemotional, technocratic method of (assisting) human decision-making. CBA, like other forms of commensuration, such as rankings of academic institutions, employers, places to live, Web sites, and wines, certainly appears to fill an understandable human desire for objectivity and precision. Many lawyers obsess over numerical rankings, ranging from student rank in law school, to the annual U.S. News & World Report ranking of law schools, to rankings of law firms according to such criteria as associates' first-year salaries, annual bonuses, and quality of life. But some critics of CBA believe this appearance is a mere illusion.<sup>32</sup> Most people understandably experience stress from deliberating over and having to make tragic choices, 33 such as those depicted in the movie *Indecent Proposal* and the book *Sophie's Choice*.<sup>34</sup> CBA makes trade-offs explicit and transparent.<sup>35</sup> Some people often experience negative feelings and find it hard to face when they have to explicitly make certain types of trade-offs.<sup>36</sup>

A psychologically sophisticated theory provides an explanatory framework for taboo trade-offs.<sup>37</sup> This theory integrates two other theories, one that posits four fundamental models of social relations,<sup>38</sup> and one about value pluralism and trade-offs.<sup>39</sup> This theory suggests that taboo trade-offs are not just cognitively

<sup>&</sup>lt;sup>27</sup> Peter H. Huang, 2008, "Diverse Conceptions of Emotions in Risk Regulation" (in response to ibid.), University of Pennsylvania Law Review PENNumbra, 156, pp. 435-447.

<sup>&</sup>lt;sup>28</sup> Claire A. Hill, 2004, "Law and Economics in the Personal Sphere," *Law and Social Inquiry*, 29,

p. 224, n. 11. Eric A. Posner, 1998, "The Strategic Basis of Principled Behavior: A Critique of the Incommensurability Thesis," *University of Pennsylvania Law Review*, 146, pp. 1185–214.

Margaret J. Radin, 2001, *Contested Commodities*, Cambridge, MA: Harvard University Press. See

Peter H. Huang, 1998, "Dangers of Monetary Commensurability: A Psychological Game Model of Contagion," University of Pennsylvania Law Review, 146, pp. 1701-22, for a psychological-gametheoretic model of contested commodities.

<sup>31</sup> Kenneth J. Arrow, 1997, "Invaluable Goods," *Journal of Economic Literature*, 35, p. 757.

<sup>32</sup> Emma Coleman Jordan and Angela P. Harris, 2005, Economic Justice: Race, Gender, Identity and Economics, New York: Foundation Press, pp. 379–84.

<sup>33</sup> Guido Calabresi and Philip Bobbitt, 1978, Tragic Choices: The Conflicts Society Confronts in the Allocation of Tragically Scarce Resources, New York: W. W. Norton.

<sup>&</sup>lt;sup>34</sup> Indecent Proposal, 1993, Paramount Pictures; William Styron, 1979, Sophie's Choice, New York: Vintage, pp. 483-84.

<sup>35</sup> Harold Winter, 2005, *Trade-offs: An Introduction to Economic Reasoning and Social Issues*, Chicago: University of Chicago Press.

<sup>&</sup>lt;sup>36</sup> Mary F. Luce et al., 2001, *Emotional Decisions: Trade-off Difficulty and Coping in Consumer Choice*, Chicago: University of Chicago Press.

<sup>&</sup>lt;sup>37</sup> Alan Page Fiske and Philip E. Tetlock, 1997, "Taboo Trade-offs: Reactions to Transactions That Transgress the Spheres of Justice," Political Psychology, 18, pp. 255–297.

Alan Page Fiske, 1992, "The Four Elementary Forms of Sociality: Framework for a Unified Theory of Social Relations," Psychological Review, 99, pp. 689-723.

<sup>&</sup>lt;sup>39</sup> Philip E. Tetlock et al., 1996, "Revising the Value Pluralism Model: Incorporating Social Content and Context Postulates," in Clive Seligman et al., eds., The Psychology of Values: The Ontario Symposium, vol. 8, Hillsdale, NJ: Erlbaum, pp. 25-51.

confusing, but also trigger negative behavioral and emotional reactions. It hypothesizes that people facing, and being forced to make, taboo trade-offs feel agony, ambivalence, anger, anxiety, denial, discomfort, distress, indignation, moral outrage, offense, and uneasiness. But for individuals who see the world through an economic lens, no trade-off is taboo, because all values can be and so are reduced to a single metric, namely that of utility. For people who do not see the world through an economic lens only, some trade-offs are taboo because they violate deeply held intuitions and social-relational constraints on what should be considered fungible. Use the people would like to protect certain values from being part of trade-offs. People's reluctance to make such trade-offs explicitly instead of implicitly helps explain people's resistance to CBA. Expressive views of law interpret choices among incommensurable options and processes by which societies make those choices as signals of those societies' identities or aspirations. Such views of social decision-making are related to psychological models of individual self-signaling.

Some people feel that for particular issues, other criteria should or do trump CBA. For example, in the movie *Class Action*, <sup>45</sup> a car manufacturer decides to not recall a defectively designed automobile, after comparing the cost of redesigning that model with the benefit of saving human lives. This plot mirrors how the Ford Motor Company used CBA in deciding to not move the location of gas tanks in the Pinto model. <sup>46</sup> An empirical study found that mock jurors penalize business defendants who engaged in CBA of potential safety improvements. <sup>47</sup> Another example of CBA some people are likely to find troubling is utilizing it to decide whether to torture a suspected terrorist for information that could save innocent lives. A final example is that some people may feel that insider trading and securities fraud should be illegal even if they generate benefits like greater informational efficiency that exceed costs like reduced market liquidity.

People sometimes choose to not utilize CBA for particular choices by adopting rules or principles. <sup>48</sup> CBA of environmental, health, and safety regulations is based

<sup>&</sup>lt;sup>40</sup> A. Peter McGraw and Philip E. Tetlock, 2005, "Taboo Trade-Offs, Relational Framing, and the Acceptability of Exchanges," *Journal of Consumer Psychology*, 15, pp. 2–15.

<sup>&</sup>lt;sup>41</sup> Jonathan Baron and Mark Spranca, 1997, "Protected Values," Organizational Behavior and Human Decision Processes, 70, pp. 1–16.

<sup>&</sup>lt;sup>42</sup> Robert J. MacCoun, 2000, "The Costs and Benefits of Letting Juries Punish Corporations: Comment on Viscusi," *Stanford Law Review*, 52, pp. 1821–8.

<sup>&</sup>lt;sup>43</sup> Elizabeth Anderson, 1995, Value in Ethics and Economics, Cambridge, MA: Harvard University Press; Philip Harvey, 2004, "Aspirational Law," Buffalo Law Review, 52, pp. 701–26.

<sup>44</sup> Ronit Bodner and Drazen Prelec, 2003, "Self-Signaling and Diagnostic Utility in Everyday Decision Making," in Isabelle Brocas and Juan D. Carrillo, *The Psychology of Economic Decisions, Volume I: Rationality and Well-Being*, Oxford: Oxford University Press, pp. 105–23; Drazen Prelec and Ronit Bodner, 2003, "Self-Signaling and Self-Control," in George Loewenstein et al., eds., *Time and Decision: Economic and Psychological Perspectives on Intertemporal Choice*, New York: Russell Sage Foundation, pp. 277–98.

<sup>&</sup>lt;sup>45</sup> Class Action, Twentieth Century-Fox Film Corporation, 1991.

<sup>&</sup>lt;sup>46</sup> Douglas Birsch and John H. Fielder, 1994, The Ford Pinto Case: A Study in Applied Ethics, Business, and Technology, Albany, NY: State University of New York Press.

<sup>&</sup>lt;sup>47</sup> W. Kip Viscusi, 2000, "Corporate Risk Analysis: A Reckless Act," Stanford Law Review, 52, pp. 547–97.

<sup>&</sup>lt;sup>48</sup> Drazen Prelec and R. J. Herrnstein, 1991, "Preferences or Principles: Alternative Guidelines for Choice," in Richard Zeckhauser, ed., Strategy and Choice, Cambridge, MA: MIT Press, pp. 319–40.

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upon taking account of measurable costs and benefits, determined via revealed preference techniques, such as hedonic pricing methodology, or stated preference techniques, such as contingent valuation methodology. One criticism of CBA is that it is often incomplete about benefits but complete about costs, because many costs are monetary and easy to measure, whereas those benefits that are left out are perceived to be difficult for government regulators to quantify and verify. But, even for regulations that are desirable regardless of their quantifiable benefits, regulators can adopt the most cost-effective regulations. For example, regulators can apply cost-effectiveness analysis to ration health care.<sup>49</sup>

Lord Kelvin famously stated that: "[w]hen you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind."50 The mathematician Philolaus "put it even more bluntly in the fifth century BC: 'Everything that can be known has a number."51 But numbers can also provide us with the illusion of knowledge and offer corporate or political leaders a false sense of authority.<sup>52</sup> A popular nickname for economics is the queen of the social sciences,<sup>53</sup> partly because economics is like a certain style of physics due to the mathematical nature of economic theories and its econometric testing. A mathematical economist and game theorist found experimental survey evidence that teaching microeconomics by emphasizing the mathematics of constrained optimization problems encourages individuals toward profit maximization.<sup>54</sup> I remember, as a Ph.D. student of Kenneth Arrow's, listening to Arrow and Frank Hahn have a conversation about how those who choose to study economics differ from those who do not. Hahn said that he chose to go into economics because he realized he was not as gifted in mathematics as physicists and mathematicians. Arrow replied that that sort of thinking in terms of comparative advantage is already of an economic nature.

Does exposure to economics change one's behavior and expectations of how others behave? Several empirical and experimental studies examine whether being exposed to economics changes people's behavior. There is evidence that economists behave more selfishly than noneconomists in prisoner's dilemma games, and that learning introductory microeconomics from professors emphasizing prisoner's dilemmas and self-interested behavior is correlated with students choosing less cooperative responses in questionnaires about their behavior in hypothetical

<sup>&</sup>lt;sup>49</sup> Peter A. Ubel, 2000, Pricing Life: Why It's Time for Health Care Rationing, Cambridge, MA: MIT Press.

Sir William Thomson (Lord Kelvin), 1889, "Electrical Units of Measurement," lecture delivered to the Institution of Civil Engineers on May 3, 1883, in *Popular Lectures and Addresses*, vol. 1, London: McMillan, p. 73.

<sup>51</sup> John M. Henshaw, 2006, Does Measurement Measure Up?: How Numbers Reveal and Conceal the Truth, Baltimore, MD: Johns Hopkins Press, p. x.

<sup>&</sup>lt;sup>52</sup> David Boyle, 2004, The Sum of Our Discontent: Why Numbers Make Us Irrational, New York:

<sup>&</sup>lt;sup>53</sup> Uskali Mäki, "The Dismal Queen of the Social Sciences," 2003, in Uskali Mäki, ed., Fact and Fiction in Economics: Models, Realism and Social Construction, Cambridge: Cambridge University Press,

<sup>&</sup>lt;sup>54</sup> p. 3. Ariel Rubinstein, 2006, "A Sceptic's Comment on the Study of Economics," *Economic Journal*, 116, pp. C1–9.

ethical dilemmas.<sup>55</sup> These findings have been replicated and extended to Canadian undergraduates, focusing on differences between economics majors and others, such as psychology majors.<sup>56</sup> But there is also evidence that real-world behavior of undergraduates in economics courses is actually substantially more cooperative than that of undergraduates in other courses.<sup>57</sup> There is also evidence that professional economists are significantly more cooperative about paying their professional association dues than professional political scientists and sociologists.<sup>58</sup> Further empirical evidence contradicts an indoctrination hypothesis that learning and practicing microeconomics leads to more calculating behavior in everyday life, and instead supports a selection hypothesis that individuals who are sympathetic to applying the price system are drawn to economics.<sup>59</sup> Nonetheless, recent experiments found that participants who were only primed to think about money preferred to play alone, work alone, and put more physical distance between themselves and new acquaintances.<sup>60</sup>

It would be of interest to resolve the open empirical question whether law students in actual and hypothetical ethical dilemmas, prisoner's dilemmas, and other experimental situations behave differently according to whether they took courses from professors who are supportive or critical of law and economics. Therefore, this chapter proposes empirically testing if those who see the world through an economics lens experience neutral or positive emotional reactions to applying microeconomics to nonbusiness areas of law, and those who do not see the world through an economics lens experience negative emotional reactions from doing so. This unsettled question can be resolved empirically by conducting surveys of academic and professional economists, academic and professional lawyers, economics graduate students, law students, and laypeople who view the world through an economic lens and those who do not. A hypothesis is that people who view the world through an economics lens will feel neutral or positive emotional reactions to applying microeconomics to nonbusiness areas of law, whereas people who do not will feel negative emotional reactions to doing so.

# II. HOW MOST ECONOMISTS – AS OPPOSED TO MOST LAWYERS – VIEW LAW AND ECONOMICS

Most academic and professional economists without a J.D. know less about substantive law and legal procedure than most academic and professional lawyers.

<sup>&</sup>lt;sup>55</sup> Robert H. Frank et al., 1993, "Does Studying Economics Inhibit Cooperation?" *Journal of Economic Perspectives*, 7, pp. 159–71; Robert H. Frank et al., 1996, "Do Economists Make Bad Citizens?" *Journal of Economic Perspectives*, 10, pp. 187–92.

Journal of Economic Perspectives, 10, pp. 187–92.

Tammy James et al., 2001, "Are Economists Rational, or Just Different?" Social Behavior and Personality, 29, pp. 359–64.

Anthony M. Versent et al. 2006, "Burnell Anthony M. Versent et al. 20

Anthony M. Yezer et al., 1996, "Does Studying Economics Discourage Cooperation? Watch What We Do, Not What We Say or How We Play," *Journal of Economic Perspectives*, 10, pp. 177–86.

<sup>&</sup>lt;sup>58</sup> David N. Laband and Richard O. Beil, 1999, "Are Economists More Selfish than Other 'Social' Scientists?" *Public Choice*, 100, pp. 85–101.

<sup>&</sup>lt;sup>59</sup> Bruno S. Frey et al., 1993, "Economics Indoctrination or Selection: Some Empirical Results," Journal of Economics Education, 24, pp. 271–281; Bruno S. Frey and Stephan Meier, 2003, "Are Political Economists Selfish and Indoctrinated? Evidence from a Natural Experiment," Economic Inquiry, 41, pp. 448–62.

<sup>60</sup> Kathleen D. Vohs et al., 2006, "The Psychological Consequences of Money," *Science*, 314, pp. 1154–6.

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But much of substantive law and legal procedure is to a large degree arbitrary and the result of human conventions, as evidenced by the fact that at different times within any one country, and in different countries at any one time, there is usually much variation in substantive law and legal procedure. By virtue of their education in graduate school, most academic and professional economists share common training in microeconomics, involving routine application of a set of mathematical methods. In contrast, most academic and professional lawyers do not share that instruction unless they also have successfully completed a Ph.D. in economics or an economics-related field. Instead, most academic and professional lawyers have a J.D. and thus have their first year of required law school courses in common. Knowledge in microeconomics among most academic and professional lawyers is vastly more heterogeneous than among most academic and professional economists.

Most academic and professional lawyers do not know any microeconomics whatsoever. A few academic and professional lawyers know only whatever they have read in popular trade books about law and economics,<sup>61</sup> or microeconomics.<sup>62</sup> Fewer academic and professional lawyers know microeconomics at the level of a freshman undergraduate principles course, using high school algebra and geometry. Even fewer academic and professional lawyers know microeconomics at the level of an intermediate course for economics undergraduate majors, utilizing calculus. A few academic and professional lawyers know microeconomics at the level of a course specifically designed for lawyers. 63 Even fewer still academic and professional lawyers know microeconomics at the level of a first-year graduate school core sequence course, utilizing multivariable calculus and linear algebra. Finally, of course, the fewest academic and professional lawyers know microeconomics at the level of a second-year graduate school advanced microeconomic theory or mathematical economics field course, utilizing differential topology, functional analysis, and measure theory.

Because of differences in their professional training, most academic and professional lawyers without a Ph.D. in economics or an economics-related field know less formal mathematical microeconomic theory than most academic and professional economists. Ironically, most law-and-economics researchers at what is considered the birthplace of law and economics, the University of Chicago law school, apply microeconomics only at the level of at most the first-year microeconomics graduate course. I remember while being a first-year law student at the University of Chicago law school thinking of writing a review of game-theory books for legal scholars, 64 focusing on a just-published book that then dean of the University of Chicago law school Douglas Baird coauthored, explaining how

<sup>&</sup>lt;sup>61</sup> David D. Friedman, 2001, *Law's Order: What Economics Has to Do with Law and Why It Matters*,

Princeton: Princeton University Press.

62 Steven D. Levitt and Stephen J. Dubner, 2006, Freakonomics: A Rogue Economist Explores the Hidden Side of Everything, rev. ed., New York: William Morrow.

<sup>63</sup> Richard A. Ippolito, 2005, *Economics for Lawyers*, Princeton: Princeton University Press.

<sup>&</sup>lt;sup>64</sup> Peter H. Huang, 1995, "Strategic Behavior and the Law: A Guide for Legal Scholars to *Game Theory* and the Law and Other Game Theory Texts," Jurimetrics: Journal of Law, Science, and Technology, 36, pp. 99-114.

legal scholars can apply game theory to analyze legal rules and institutions.<sup>65</sup> He graciously invited me to lunch at the University of Chicago faculty club. En route to our table, several other University of Chicago law school professors congratulated him on the recent publication of his book, but also questioned why legal scholars had to learn any modern game theory, because all of law and economics is just marginal "this and that," for which all one required was calculus. It is unclear whether this comment was made jokingly or not, but such a viewpoint certainly exists among a number of economists: that all of microeconomics is merely the study of single-person constrained optimization problems.

A related but different viewpoint is that microeconomics is the mere formalization of three commonsense and intuitive notions, namely, that individuals are rational, markets are socially desirable, and government regulations are harmful. This viewpoint was also certainly prevalent among some, if not most, law-and-economics researchers at the University of Chicago. Other related viewpoints that are most associated with the University of Chicago include these: if one looks hard enough, there is a rational explanation for any seemingly irrational behavior, <sup>66</sup> people are primarily motivated by monetary incentives, <sup>67</sup> microeconomics explains many apparent paradoxes of life, <sup>68</sup> and one can find examples of microeconomics in action everywhere by just observing people in their ordinary lives. <sup>69</sup>

Crossing the Midway while returning from the University of Chicago faculty club to the University of Chicago law school after another lunch with Dean Baird, he asked me whether I thought it was more important for one to be correct or first in publishing research. I replied that if it was too much to ask for both, the history of ideas has valued being first more than being correct. He said that neither was as important as what is most important, namely being controversial. Not only is much of the application of microeconomics to nonbusiness areas of law by University of Chicago law school professors controversial outside the University of Chicago law school, but apparently part of the University of Chicago culture is to not care that people outside the University of Chicago find the relentless application of (simple) price theory in a nonbusiness realm to be often inappropriate and in bad taste. As University of Chicago Graduate School of Business economist Austan Goolsbee stated: "We know that everyone hates us. The reason we do not care is that we are too busy arguing with each other to pay attention."<sup>70</sup> Apparently some University of Chicago law school professors actively seek out controversy. Being controversial is related to another part of the University of Chicago ethos: being misunderstood by those who are not part of the University of Chicago. En

<sup>&</sup>lt;sup>65</sup> Douglas G. Baird et al., 1994, Game Theory and the Law, Cambridge, MA: Harvard University Press.
<sup>66</sup> Tim Harford, 2008, The Logic of Life: The Rational Economics of an Irrational World, New York: Random House.

<sup>&</sup>lt;sup>67</sup> Tyler Cowen, 2007, Discover Your Inner Economist: Use Incentives to Fall in Love, Survive Your Next Meeting, and Motivate Your Dentist, New York: Dutton.

<sup>68</sup> Tim Harford, 2007, The Undercover Economist: Exposing Why the Rich Are Rich, Why the Poor Are Poor – and Why You Can Never Buy a Decent Used Car! New York: Random House.

<sup>&</sup>lt;sup>69</sup> Robert H. Frank, 2007, The Economic Naturalist: In Search of Explanations for Everyday Enigmas, New York: Basic Books.

<sup>&</sup>lt;sup>70</sup> Goolsbee, "Why People Hate Economists," p. 18.

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route to a third lunch with Dean Baird, he described how difficult it is to secure letters from external reviewers who would understand the research conducted by a University of Chicago law school assistant professor. Indeed, as van Overtveldt writes, "Chicago's scholars have always been engaged in developments that were described elsewhere as 'crazy,' 'on the lunatic fringe,' 'a dead-end street,' and/or 'useless.'"

A barrier to entry into graduate school in economics or an economics-related field is knowledge of multivariable calculus and linear algebra, and successful completion of graduate school in such fields requires successfully mastering some rudimentary elements of convex analysis, decision theory, dynamic programming, game theory, and topology. Undergraduate economics majors have to complete such mathematically rigorous courses as econometrics and intermediate microeconomics, quite often in addition to game theory and mathematics for economists. There is no equivalent mathematically rigorous course requirement for being a pre-law undergraduate major. In contrast, pre-med undergraduates are required to complete a year-long course in calculus and other rigorous courses such as organic and physical chemistry.

Mathematics is a language that most in law school are uncomfortable speaking or even hearing. Whether one admires or bemoans it,<sup>72</sup> there is no denying that mathematics is the language of contemporary microeconomic theory as well as that of empirical and experimental (micro)economics. This is because the language of mathematics offers levels of abstraction, precision, and rigor that do not exist in the language of anecdotes, metaphors, rhetoric, and stories, the way economists argued before the advent of mathematical economics. With the presentation of formal economic models in the language of mathematics that the Arrow–Debreu canonical model of general equilibrium started, economics came to be perceived as a mathematical science as opposed to a branch of moral philosophy.<sup>73</sup>

Economist Marcus Berliant provides five reasons for why modern economists continue to expand the depth and breadth of their use of the language of mathematics: "First, and perhaps foremost, mathematics makes communication between researchers succinct and precise. Second, it helps make assumptions and models clear; this bypasses arguments in the field that are a result of different implicit assumptions. Third, proofs are rigorous, so mathematics helps avoid mistakes in the literature. Fourth, its use often provides more insights into the models. And finally, the models can be applied to different contexts without replicating the analysis, simply by renaming symbols."<sup>74</sup>

Most Nobel laureates in economics who have made pioneering and seminal contributions in microeconomics or finance did so by formulating models of human behavior utilizing the language of mathematics. A clear hierarchy exists

<sup>71</sup> Johan van Overtveldt, 2007, The Chicago School: How the University of Chicago Assembled the Thinkers who Revolutionized Economics and Business, Chicago: University Of Chicago Press.

Donald A.R. George, "Consolations for the Economist: The Future of Economics Orthodoxy,"

\_ Journal of Economic Surveys, 21, pp. 417–25.

E. Roy Weintraub, 2002, *How Economics Became a Mathematical Science*, Durham, NC: Duke University Press.

<sup>&</sup>lt;sup>74</sup> Foreword to Norman Schofield, 2004, Mathematical Methods in Economics and Social Choice, Berlin: Springer-Verlag.

among economists, with mathematical economists having the highest status.<sup>75</sup> But, precisely because mathematical economists deeply understand the mathematics of economic models, they also appreciate the limitations of economic models much more than people who do not understand the mathematics. Economist Stephen Marglin wrote: "Kenneth Arrow, among the great economists of the twentieth century, was recognized with one of the very first Nobel Prizes given in economics for his work on, among other things, general equilibrium theory. Arrow once said to me that the chief virtue of deep study of the theory of general equilibrium was that it revealed how stringent are the requirements for market outcomes to be socially desirable."<sup>76</sup>

The apparently sensible notion that financial market innovation is always socially desirable provides an example of how a lack of knowledge about mathematical models can lead people to believe in a falsehood. Because a complete set of asset markets will result in a Pareto-efficient allocation of risk, 77 it follows that completing asset markets by adding sufficiently many assets so as to have as many nonredundant assets as there are states of nature is Pareto-improving. But a central insight of theoretical research in the general-equilibrium theory of incomplete markets is that if asset markets remain incomplete after the addition of assets, then competitive market allocations typically not only are Pareto-inefficient, but also can be improved upon by a benevolent central planner who is constrained to utilize the set of existing incomplete asset markets. 78 This research formally proves that an intuition that many people have about the unambiguous social desirability of financial innovation – namely, that the introduction of asset markets will always and monotonically improve the welfare of consumers and investors - is demonstrably wrong and is actually only correct if a society is just one market short of complete asset markets.

## III. QUALIFICATIONS REGARDING MARKETS

Economist Donald Wittman stated that "[m]ost controversies in the social sciences are ultimately arguments over the nature of the market. Marxist sociologists believe that both economic and political markets are characterized by poorly informed, possibly irrational consumers and voters who are exploited by monopolist suppliers of goods and policy." For some people, markets can evoke negative images of unsympathetic robber barons and selfish capitalists exploiting hard-working

<sup>75</sup> Axel Leijonhufvud, 2004, "Life Among the Econ," Western Economic Journal, 11, pp. 327–37.

<sup>76</sup> Stephen A. Marglin, 2008, The Dismal Science: How Thinking Like an Economist Undermines Community, Cambridge, MA: Harvard University Press, p. 292. Some current economics research investigates whether there is a normative justification for competitive market allocations even when consumer preferences are not coherent; see, for example, Robert Sugden, 2004, "The Opportunity Criterion: Consumer Sovereignty without the Assumption of Coherent Preferences," American Economic Review, 94, pp. 1014–33.

Kenneth J. Arrow, 1963–64, "The Role of Securities in the Optimal Allocation of Risk-Bearing,"
 Review of Economic Studies, 31, pp. 91–6.

<sup>&</sup>lt;sup>78</sup> Peter H. Huang, 2000, "A Normative Analysis of New Financially Engineered Derivatives," Southern California Law Review, 73, pp. 471–521.

<sup>&</sup>lt;sup>79</sup> Donald A. Wittman, 1995, The Myth of Democratic Failure: Why Political Institutions are Efficient, Chicago: University of Chicago Press.

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laborers, <sup>80</sup> and recall the infamous scene in the film *Wall Street*, <sup>81</sup> in which Gordon Gekko made the notorious speech about how greed is good. <sup>82</sup> Such depictions make for colorful stories of and reflect suspicions toward markets. Academic and professional lawyers routinely tell stories, make analogies, and use metaphors, <sup>83</sup> as do academic and professional economists. <sup>84</sup> Human cognition at its heart involves narratives, analogies, and metaphors. <sup>85</sup> Of course, there are limits to the appropriateness or aptness of market metaphors. <sup>86</sup> There are related negative and positive metaphors about marketing. <sup>87</sup> To be sure, there are positive metaphors about markets, the most famous being Adam Smith's notion of an invisible hand.

But Milton Friedman famously defended markets, not in terms of Pareto efficiency of competitive allocations, but instead in terms of promoting freedom. Friedman contrasted market allocation with allocation by governments under majority rule, where a majority can impose its will on individuals. Friedman viewed markets as ways to avoid the tyranny of the majority. As he eloquently stated, a "characteristic feature of action through political channels is that it tends to require or enforce substantial conformity. The great advantage of the market, on the other hand, is that it permits wide diversity. It is, in political terms, a system of proportional representation. Each man can vote, as it were, for the color of tie he wants and get it; he does not have to see what color the majority wants and then, if he is in the minority, submit." But it is well known in the subfield of economics known as industrial organization that for heterogeneous instead of homogeneous products, markets with sizable fixed costs of production result in a socially inefficient amount of product differentiation. For consumers

William D. Casebeer, 2008, "The Stories Markets Tell: Affordances for Ethical Behavior in Free Exchange," in Paul J. Zak, ed., Moral Markets: The Critical Role of Values in the Economy, Princeton: Princeton University Press, pp. 3–15.

<sup>81</sup> Wall Street, Twentieth Century-Fox Film Corporation, 1987.

<sup>&</sup>lt;sup>82</sup> David Ray Papke et al., 2007, Law and Popular Culture: Text, Notes, and Questions, Newark, NJ: LexisNexis, pp. 433–9.

Ruth Anne Robbins, 2006, "Harry Potter, Ruby Slippers and Merlin: Telling the Client's Story Using the Characters and Paradigm of the Archetypal Hero's Journey," Seattle University Law Review, 29, pp. 767–802; Lloyd L. Weinreb, 2005, Legal Reason: The Use of Analogy in Legal Argument, New York: Cambridge University Press; Pamela Samuelson, 1996, "The Quest for Enabling Metaphors for Law and Lawyering in the Information Age," Michigan Law Review, 94, pp. 2029–57.

<sup>&</sup>lt;sup>84</sup> Sara Ann Reiter, 1997, "Storytelling and Ethics in Financial Economics," *Critical Perspectives on Accounting*, 8, pp. 605–32; H. Thoben, 1982, "Mechanistic and Organistic Analogies in Economics Reconsidered," *Kyklos*, 35, pp. 292–306; Hanna Skorczynska, 2006, "Readership and Purpose in the Choice of Economics Metaphors," *Metaphor and Symbol*, 21, pp. 87–104.

<sup>&</sup>lt;sup>85</sup> Mark Turner, 1998, *The Literary Mind: The Origins of Thought and Language*, New York: Oxford University Press; Dedre Gentner et al., 2001, *The Analogical Mind: Perspectives from Cognitive Science*, Cambridge, MA: MIT Press; George Lakoff and Mark Johnson, 1980, *Metaphors We Live By*, Chicago: University of Chicago Press.

<sup>&</sup>lt;sup>86</sup> Jeffrey R. Henig, 1994, Rethinking School Choice: Limits of the Market Metaphor, Princeton: Princeton University Press.

<sup>&</sup>lt;sup>87</sup> John A. Quelch and Katherine E. Jocz, 2008, Greater Good: How Good Marketing Makes for Better Democracy, Cambridge, MA: Harvard Business School Press.

<sup>88</sup> Milton Friedman, 1962, Capitalism and Freedom, Chicago: University of Chicago Press.

<sup>&</sup>lt;sup>69</sup> Ibid, p. 15.

Michael Spence, 1976, "Product Differentiation and Welfare," American Economic Review, 66(2), pp. 407–14; Michael Spence, 1976, "Product Selection, Fixed Costs, and Monopolistic Competition," Review of Economic Studies, 43, pp. 217–35.

with atypical preferences, such as African Americans, Asian Americans, Hispanics, other ethnic and racial minorities, people suffering from rare allergies or diseases, and individuals living in remote places, there can be a tyranny of markets. <sup>91</sup> Empirical examples of markets having suboptimal product diversity include those for local daily newspapers, <sup>92</sup> local radio stations, <sup>93</sup> and local television stations. <sup>94</sup>

A related appeal to markets for promoting freedom occurs when the phrase "a marketplace of ideas" is invoked in order to advocate freedom of expression or speech. This fundamental human right is guaranteed under the First Amendment of the United States Constitution, Article 19 of the Universal Declaration of Human Rights, and Article 10 of the European Convention on Human Rights. The underlying appealing and intuitive notion is that from unrestricted competition among different ideas in free and transparent public discourse, the best policy or truth will prevail. A 1967 Supreme Court opinion first contained the phrase "a marketplace of ideas" in stating "[t]he classroom is peculiarly the 'marketplace of ideas." A broad concept and metaphor of "a marketplace of ideas" is usually attributed to a dissenting opinion by Justice Oliver Wendell Holmes, Jr., where he never used that actual phrase, but implied that notion: "Persecution for the expression of opinions seems to me perfectly logical. If you have no doubt of your premises or your power and want a certain result with all your heart you naturally express your wishes in law and sweep away all opposition.... But when men have realized that time has upset many fighting faiths, they may come to believe even more than they believe the very foundations of their own conduct that the ultimate good desired is better reached by free trade in ideas, ... that the best test of truth is the power of the thought to get itself accepted in the competition of the market, and that truth is the only ground upon which their wishes safely can be carried out. That at any rate is the theory of our Constitution."96

The preceding theoretical research and empirical evidence demonstrating that markets with large fixed costs have too few or too many products, of course, naturally should qualify any faith one may have about whether the outcome from a marketplace of ideas will be optimal. The production of ideas, like information generally, has aspects of public goods, including substantial fixed costs and low if not zero marginal costs. In addition to the question of whether a marketplace of ideas will produce an outcome with too few or too many ideas, "ideas do not develop in a vacuum. Ideas need networks through which they can be shared and nurtured, organizations to connect them to problems and to diffuse them to

<sup>&</sup>lt;sup>91</sup> Joel Waldfogel, 2007, The Tyranny of the Market: Why You Can't Always Get What You Want, Cambridge, MA: Harvard University Press.

Cambridge, MA: Harvard University Press.

Press.

Lisa George, 2006, "The New York Times and the Market for Local Newspapers," American Economic Review, 96, pp. 435–47; Lisa George and Joel Waldfogel, 2003, "Who Affects Whom in Daily Newspaper Markets," Journal of Political Economy, 111, pp. 765–84.

Steven T. Berry and Joel Waldfogel, 1999, "Free Entry and Social Inefficiency in Radio Broadcasting,"
 RAND Journal of Economics, 30, pp. 397–420; Joel Waldfogel, 2003, "Preference Externalities: An Empirical Study of Who Benefits Whom in Differentiated-Product Markets," RAND Journal of Economics, 34, pp. 557–68.
 Joel Waldfogel, 2004, "Who Benefits Whom in Local Television Markets?" Brookings-Wharton Papers

<sup>&</sup>lt;sup>94</sup> Joel Waldfogel, 2004, "Who Benefits Whom in Local Television Markets?" Brookings-Wharton Papers on Urban Affairs, 5, pp. 257–84.

<sup>95</sup> Keyishian v. Board of Regents, 385 U.S. 589, 605–606 (1967).

<sup>&</sup>lt;sup>96</sup> Abrams v. United States, 250 U.S. 616, 630 (1919).

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political actors, and patrons to provide resources for these supporting conditions. Of greater significance, the market for ideas is one in which incumbents have substantial resources with which to frustrate the challenges of competitors, regardless of how compelling their ideas are. In short, though there is a 'market' for ideas, it is one that is institutionally sticky and requires entrepreneurial activity to give it life. For this reason, intellectual history is necessary but not sufficient." There are related other concerns based upon the concept of a meme, which is an information pattern, and the field of memetics, which theoretically and empirically studies how memes replicate, spread, and evolve. 98 Examples of memes include fashions, ideas, practices, songs, technologies, theories, and traditions.

Austan Goolsbee stated that "[i]n our world, it does not matter where you got a degree or how old you are or where you are from. It just matters what your ideas are. And that's how it should be."99 He is making a positive statement about how the University of Chicago is a marketplace of ideas and also a normative statement about how that is desirable. Economist Colin Camerer once joked that if you present a talk at most places, the audience is gracious and polite, treating you like a dinner host, but if you present a talk at the University of Chicago, the audience is rowdy and unruly, treating you like an emergency room patient on whom the audience has to perform triage. Law-and-economics scholar Steven Shavell presented a talk in the University of Chicago law school's law-and-economics workshop in the fall of 2001 when I was a visiting assistant professor there. The first slide that he put up was one that was numbered in the twenties because he wanted to make sure that he would be able to cover it. After five minutes of audience members bickering amongst themselves and interrupting him, he simply turned off the overhead projector, stating that he should have known better than to think any differently. As Goolsbee stated: "It's who we are. We live to argue. How does the world work? Where should we eat lunch? Anything." 100 He added, "Come to a seminar any week of the year in economics, and you will find scholars in the thick of a debate that would long since have been considered 'checked out' anywhere else. It's actually quite thrilling."101

Although some people may be in love with the idea of a marketplace of ideas in academia, the reality in economics is that both type I and type II errors occur as to which articles are published in peer-refereed journals. With respect to law reviews, second- and third-year law students make the decisions about which articles get published. There usually is not blind submission, because law students typically use the law school affiliation and alma mater of an author as informative signals for the "quality" of authors and perform searches on authors in the two

<sup>&</sup>lt;sup>97</sup> Steven M. Teles, 2008, The Rise of the Conservative Legal Movement: The Battle for Control of the Law, Princeton: Princeton University Press, pp. 3–4.

<sup>&</sup>lt;sup>98</sup> Richard Dawkins, 1976, The Selfish Gene, Oxford: Oxford University Press; Susan Blackmore, 2000, The Meme Machine, new ed., Oxford: Oxford University Press.

Goolsbee, "Why People Hate Economists," p. 18.

<sup>100</sup> Ibid.

<sup>&</sup>lt;sup>101</sup> Ibid., p. 19

<sup>&</sup>lt;sup>102</sup> Joshua S. Gans and George B. Shepherd, 1994, "How Are the Mighty Fallen: Rejected Classic Articles by Leading Economists," *Journal of Economic Perspectives*, 8, pp. 165–79.

primary databases of legal publications, Lexis and Westlaw, to see the "quality" of their law review publications. Most law students rank law reviews according to how the associated law schools are ranked annually by *U.S. News & World Report*. It is also common for law professors to include with their submissions cover letters, resumes, reprints, suggested optional external reviewers, and even photographs. Simultaneously submitting to many law reviews is also standard, whereas such a practice is unacceptable in economics, medicine, and other fields. Finally, one can try to trade up an acceptance from a lower-ranked law review by asking higher-ranked law reviews for expedited reviews. This has led some law reviews to offer exploding offers with a deadline of twenty-four hours, the close of the business day, or even two hours.

Law review editors are likely to be twenty-five years old; do not necessarily know anything about microeconomics, statistics, and other fields besides law, nor even the area of law that a submission is about; and have neither the interest nor the time required to read thoroughly each of several thousand unsolicited submissions that they annually receive to fill up the four to six issues of a typical law review volume, with each issue having space for only several articles. When I taught at the University of Pennsylvania law school, articles editors there confided that they read few submissions, and they only read the abstract, first couple of pages, and conclusion to see how it felt. One particular law review articles editor said that he and other articles editors decided to publish a law review article because, even though they could not determine whether it was correct in terms of its (very simple) microeconomics, that article was by a well-known University of Chicago law professor with a famous history of being quite controversial in applying economics to nonbusiness areas of law, and they could tell from just reading its abstract and conclusions that it was a highly controversial article certain to draw attention to it directly, and their law review indirectly.

Facing such a marketplace for law review articles, most law professors freely admit in private that placement in law reviews is a highly random crap shoot. Several law professors repeatedly submit articles to all the top twenty law reviews twice a year for several years until one of them publishes those articles, which they can do because most law reviews have no institutional memory. Each February or March, law reviews choose new editorial boards and begin accepting submissions. They continue to do so until the end of the law school year or until they fill the first part of their available slots, whichever happens first. They then break for the summer and fill the remaining slots when they return in August from their summer associate jobs. When Mark Ramseyer was a professor at the University of Chicago law school, he said that an article of his was rejected three times by the law review at UCLA, twice after it had already been published in a higher-ranked law review, because two successive generations of UCLA articles editors found it in the law review office without realizing it already was published.

Another problem with the legal academic marketplace for ideas is that quantity is often confused with or valued over quality. After I presented a job talk at George Mason University law school, Lloyd Cohen told me that when he was a John M. Olin Research Fellow at the University of Chicago law school from September 1988 to July 1990, people were discussing who was likely to be a future Nobel laureate

in economics. Lloyd suggested Ronald Coase, at which point prolific legal scholar Cass Sunstein said that Coase only had one good idea. Upon hearing this, Lloyd said that Coase had at least two good ideas. (I said to Lloyd that Coase had two more good ideas than most academics.)

The likely inefficiency of the marketplace for ideas has consequences not just for legal scholars, but also for government regulation and public policy. As the famous macroeconomist John Maynard Keynes famously wrote in the conclusion of his celebrated book *The General Theory of Employment, Interest, and Money*: "The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed, the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back. I am sure the power of vested interest is vastly exaggerated compared with the gradual encroachment of ideas." <sup>103</sup>

The discipline of law also respects the force of precedent and is quite tradition-bound, meaning that good and bad ideas can live for quite a long time before they get competed away. As Keynes also wrote in the preface to his *General Theory*: "The difficulty lies, not in the new ideas, but in escaping from the old ones, which ramify, for those brought up as most of us have been, into every corner of our minds." In other words, new ideas can only take hold when old ideas die, but old ideas die hard and slowly. Thus the progress of economics, like the progress of science, is not by a gradual and linear accumulation of new ideas, but instead via episodic paradigm shifts. A behavioral economist observes that "academia is a nasty environment, strewn with hidden traps and populated by hostile, territorial tribes protecting their ideas with a ferocity akin to what one would expect a parent to direct at someone trying to steal his baby."

## IV. CONCERNS ABOUT RATIONALITY

As Kenneth J. Arrow eloquently stated, "An economist by training thinks of himself as the guardian of rationality, the ascriber of rationality to others, and the prescriber of rationality to the social world." Neoclassical economics assumes that because people are rational, economists can infer an individual's private, subjective, and unobservable preferences from that individual's public, objective, and observable behavior in terms of market choices. This revealed-preference approach requires that preference orderings are well-behaved, not only in the sense of satisfying certain mathematical axioms, such as the weak axiom of revealed preference,

<sup>&</sup>lt;sup>103</sup> John Maynard Keynes, 1936, The General Theory of Employment, Interest, and Money, London: Macmillan, p. 383.

<sup>104</sup> Ibid., p. vii.

 <sup>105</sup> Thomas S. Kuhn, 1962, The Structure of Scientific Revolutions, Chicago: University of Chicago Press.
 106 George Loewenstein, 2007, Exotic Preferences: Behavioral Economics and Human Motivation, New York: Oxford University Press, p. xiii.

<sup>107</sup> Kenneth J. Arrow, 1974, *The Limits of Organization*, New York: Norton, p. 16.

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but also more crucially in the sense of being stable across contexts and over time. Naturally, a number of microeconomic theorists have conducted research in search of weaker conditions for being able to perform revealed-preference analysis. <sup>108</sup> But much of recent behavioral and experimental economics research by consumer researchers, marketing professors, and psychologists empirically demonstrates that preferences are to a large degree inchoate, being constructed from, and quite sensitive to, anchors or reference points, external cues, situational contexts, and social norms. <sup>109</sup> It is clear that individual preferences are culturally and socially constructed in addition to being malleable in response to advertising, experience, imitation, and persuasion. One legal scholar suggested that elections and voting should not be seen as the mere aggregation and tabulation of exogenous and given individual citizens' preferences, but instead as processes for the deliberation and persuasion of endogenous and tentative individual citizens' preferences. <sup>110</sup>

Economists have a methodological preference for, or bias towards, building models that have as their data or inputs variables that can be objectively measured and verified, such as initial endowments of physical capital, labor, land, energy, and financial resources. These variables are quantifiable, and when markets function smoothly, they can also be priced. But there are two categories of variables that economists also treat as exogenous parameters, and that are trickier for economists to measure: producers' technologies and consumers' tastes. Economic models about how firms and societies engage in and can foster research and development, growth, and innovation obviously do not assume that production possibilities and technological constraints are fixed and immutable.

An understandable concern, at least among noneconomists, about CBA is that it privileges economics in policy evaluation by framing costs and benefits as positive or negative, which economists can then simply add or subtract. But economists already enjoy privileged roles in public policy and have done so for quite a while now, as evidenced for example by the Council of Economic Advisers (CEA), which consists of three independent economists who prepare an annual overview of U.S. economic progress known as the Economic Report of the President, with the aid of approximately twenty academic economists and four permanent economic statisticians. On the other hand, there is not now, nor is there likely to be anytime soon, a corresponding Council of Psychological Advisers.<sup>111</sup>

Many economists and policymakers prefer objective measures over subjective measures, and measures that are behaviorally generated and thus observable to and verifiable by others over measures that are self-reported, unobservable, and

<sup>&</sup>lt;sup>108</sup> Botond Köszegi and Matthew Rabin, 2007, "Mistakes in Choice-Based Welfare Analysis," American Economic Review, 97(2), pp. 477–481.

Sarah Lichtenstein and Paul Slovic, 2006, The Construction of Preference, Cambridge: Cambridge University Press.

James Gardner, 2007, "Deliberation or Tabulation? The Self-Undermining Constitutional Architecture of Election Campaigns," Buffalo Law Review, 54, pp. 1413–82.

Max H. Bazerman and Deepak Malhotra, 2006, "Economics Wins, Psychology Loses, and Society Pays," in Cremer et al., Social Psychology and Economics, pp. 263–80.

unverifiable. A recent proposal is to evaluate environmental policy upon the basis of experienced utility measures. <sup>112</sup> Financial and securities regulations can also be promulgated in the hope of influencing based upon their impacts upon investors' and others' experienced affect, happiness, and trust. <sup>113</sup> A possible concern about experienced utilities is that they are temporary psychological effects that dissipate with experience or practice. There is psychological evidence that people adapt over time, both faster and more than they and others expected, to happiness and some types of unhappiness. <sup>114</sup> The affective-forecasting literature in social psychology finds that people overestimate both the duration and the intensity of their future hedonic responses to changes in their external circumstances. <sup>115</sup> Such affective overestimation can be due to a number of sources, including a focusing illusion, a distinction bias, immune neglect, and an intensity bias. <sup>116</sup> Regardless of its cause, people inaccurately anticipate their adaptation upon a hedonic treadmill, and also incorrectly predict other people's hedonic adaptation, with numerous attendant legal implications. <sup>117</sup>

Indeed, because of inaccurate forecasting and memories about experienced utility, <sup>118</sup> two scholars advocated basing and evaluating policy upon measures of actual experienced utility. <sup>119</sup> Two other scholars presented convincing arguments that hedonic adaptation presents difficulties for using experienced utility as a welfare criterion for evaluating policy. <sup>120</sup> But what is crucial to note is that people make decisions based upon their systematically inaccurate affective forecasts, some of

<sup>112</sup> Daniel Kahneman and Robert Sugden, 2005, "Experienced Utility as a Standard of Policy Evaluation," Environmental and Resource Economics, 32, pp. 161–81.

tion," Environmental and Resource Economics, 32, pp. 161–81.

113 Peter H. Huang, forthcoming, "How Do Securities Laws Influence Affect, Happiness, and Trust?" Journal of Business and Technology Law, 3.

Phillip Brickman et al., 1978, "Lottery Winners and Accident Victims: Is Happiness Relative?" *Journal of Personality and Social Psychology*, 36, pp. 917–27.

Daniel T. Gilbert, 2006, Stumbling on Happiness, New York: Knopf; Daniel T. Gilbert and Timothy D. Wilson, 2000, "Miswanting: Some Problems in Affective Forecasting," in Joseph P. Forgas, ed., Feeling and Thinking: The Role of Affect in Social Cognition, Cambridge: Cambridge University Press, pp. 178–97.

pp. 178–97.

Daniel Kahneman and Richard H. Thaler, 2006, "Utility Maximization and Experienced Utility," *Journal of Economic Perspectives*, 20, pp. 221–34; Daniel Kahneman et al., 2004, "A Survey Method for Characterizing Daily Life Experience: The Day Reconstruction Method," *Science*, 306, 1776–80; Christopher K. Hsee and Jiao Zhang, 2004, "Distinction Bias: Misprediction and Mischoice Due to Joint Evaluation," *Journal of Personality and Social Psychology*, 86, pp. 680–95; Daniel T. Gilbert et al., 1998, "Immune Neglect: A Source of Durability Bias in Affective Forecasting," *Journal of Personality and Social Psychology*, 75, pp. 617–38; Roger Buehler and Cathy McFarland, 2001, "Intensity Bias in Affective Forecasting: The Role of Temporal Focus," *Personality and Social Psychology Bulletin*, 27, pp. 1480–93.

Richard Layard, 2005, Happiness: Lessons from a New Science, London: Allen Lane; Jason Riis et al., 2005, "Ignorance of Hedonic Adaptation to Hemo-Dialysis: A Study Using Ecological Momentary Assessment," Journal of Experimental Psychology: General, 134, pp. 3–9; Jeremy A. Blumenthal, 2005, "Law and the Emotions: The Problem of Affective Forecasting," Indiana Law Journal, 80, pp. 155–238; Samuel R. Bagenstos and Margo Schlanger, 2007, "Hedonic Damages, Hedonic Adaptation, and Disability," Vanderbilt Law Review, 60, pp. 745–97.

<sup>118</sup> Daniel Kahneman and Alan B. Krueger, 2006, "Developments in the Measurement of Subjective Well-Being," *Journal of Economic Perspectives*, 20, pp. 3–24.

<sup>119</sup> Kahneman and Sugden, "Experienced Utility."

<sup>120</sup> George Loewenstein and Peter A. Ubel, 2008, "Hedonic Adaptation and the Role of Decision and Experience Utility in Public Policy," *Journal of Public Economics*, 92, pp. 1795–1810.

which are irreversible or costly to reverse. Even if experienced utility is transitory or people can adapt to affective reactions, affect can have irreversible and permanent consequences upon individual behavior and such traditional economic variables as levels of aggregate consumption, investment, stock prices, and stock volume. More generally, both correct and incorrect affective forecasts will influence any forward-looking behavior, such as commercial real estate purchases, commercial and personal borrowing, consumer durable expenditures, mortgage financing and refinancing, new home construction, and residential real estate purchases. Expectations concerning the future affect many economic decisions in the present. <sup>121</sup> Of course, there is more to life and policy than just affect or mood. <sup>122</sup> Issues of identity and meaning can and should also be taken into account in evaluating policies and regulations.

Unlike most other social scientists, most economists have traditionally been quite skeptical of the accuracy, precision, and reliability of questionnaires and other self-descriptions. But recently, a number of economists have begun to utilize survey data involving self-reported measures of happiness and subjective well-being (SWB), and economists have developed statistical techniques to examine how external factors affect SWB. Por example, economists found that an individual's own reported utility losses from terrorism far exceed terrorism's purely economic consequences; another pair of researchers estimated the monetary value of the disutility from airport noise. Post of the disutility from airport noise.

Another study, involving a sample of nine hundred employed women, found that commuting to and from their work produced among the lowest levels of retrospective well-being out of a list of nineteen activities. <sup>126</sup> The stress from daily commuting is a bona fide disutility that can be quite large. Commuters may also feel anger towards their fellow commuters for clogging up roads, but such anger or road rage is at least conceptually distinct from driving stress, though stress might be related to such feelings as anger, boredom, despair, frustration, or loss of control. Other economists found that changes in macroeconomic variables, such as a nation's gross domestic product and inflation rate, are correlated with reported SWB; these economists also found that mere fear about unemployment is correlated with large reductions in SWB. <sup>127</sup>

<sup>&</sup>lt;sup>121</sup> Kenneth J. Arrow, 1978, "The Future and the Present in Economic Life," *Economic Inquiry*, 16, pp. 157–69.

Loewenstein and Ubel, "Hedonic Adaptation."

<sup>123</sup> Truman F. Bewley, 1999, Why Wages Don't Fall During a Recession, Cambridge, MA: Harvard University Press.

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<sup>&</sup>lt;sup>127</sup> Rafael Di Tella et al., 2003, "The Macroeconomics of Happiness," *Review of Economics and Statistics*, 85(4), pp. 809–27; Rafael Di Tella et al., 2001, "Preferences over Inflation and Unemployment: Evidence from Surveys of Happiness," *American Economic Review*, 91, pp. 335–41.

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The findings of the preceding studies, in conjunction with the literature on affective misforecasting, demonstrate that people often make choices that do not maximize their experienced utilities. Such behavior naturally raises the question of why people continue to act irrationally. As Kenneth Arrow explained:

Any argument seeking to establish the presence of irrational economic behavior always meets a standard counterargument: if most agents are irrational, then a rational individual can make a lot of money; eventually, therefore, the rational individuals will take over all the wealth. Hence, rational behavior will be the effective norm. There are two rebuttals to the counterargument: (1) Not all arbitrage possibilities exist. For example, corporate profits, even though down, are distinctly positive in real terms, after all necessary adjustments, including taxes. Yet there seems no way by which the average investor in corporate securities can get a positive real rate of return. (2) More important, if everyone else is "irrational," it by no means follows that one can make money by being rational, at least in the short run. With discounting, even eventual success may not be worthwhile. Consider for example a firm that engages in research and development, which depresses the current profit and loss statement. Irrational investors look only at this information, and therefore the price of the stock is below the expected value of future dividends based on the profitable outcomes of the research and development. In a perfectly working market with rational individuals, stock prices would gradually rise as the realization date approaches, but prices in the actual market would be constant. A rational investor would understand the future value of the stocks, but he or she could not realize any part of the gain during the gestation period. While the rational investor may get rewarded eventually if the stock is held long enough, he or she is losing liquidity during an intervening period which may be long. Hence, the demand for the stock even by the rational buyers will be depressed. As Keynes argued long ago, the value of a security depends in good measure on other people's opinions. 128

Persistence of irrationality raises at least a potential role for other actors, such as profit-seeking firms or benevolent government regulators, to help individuals make better decisions with respect to achieving higher levels of experienced utilities. <sup>129</sup> But there is also the possibility that it would be more profitable for firms or more advantageous for governments to exploit, rather than mitigate, persistent instances of irrationality. <sup>130</sup> There is currently a lively debate among some academic

<sup>&</sup>lt;sup>128</sup> Kenneth J. Arrow, 1982, "Risk Perception in Psychology and Economics," *Economic Inquiry*, 20, pp. 7–8

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pp. 175–79. Edward L. Glaeser, 2006, "Paternalism and Psychology,"  $\it Regulation, 29(2), pp. 32–8.$ 

economists and legal academics over what sort of paternalism can be justified by irrational behavior. <sup>131</sup>

#### CONCLUSION

In conclusion, this chapter has made three major points about law and economics. First, people have strong negative emotional reactions or no emotional reactions toward applying microeconomics to nonbusiness areas of law; such emotions are responses to taboo trade-offs and protected values. Second, within the field of economics, law and economics is an uncontroversial subfield of applied microeconomics, but within legal academia, it has become a forceful and contested school of thought; these different outcomes reflect differences in familiarity with microeconomics presented mathematically. Third, much research substantially qualifies many familiar and often cited purported benefits of markets and rationality, and those familiar with this research realize that there are intricacies and subtleties to markets and rationality that people unfamiliar with it often do not.

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